

Work Order ID 72131

Tuesday, July 19, 2011 12:42:20 PM



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Item ID: D2622-120C

Accept



Setup Start



Revision ID:

Item Name: Step Extrusion

117

Stop



Start Date: 7/19/2011 Start Qty: ~~20.00~~



Cust Item ID:

Required Date: 8/30/2011 Req'd Qty: 110.00



Customer:

Reference:

Approvals:

Process Plan:

[Signature]

Date: 7-07-19

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start



Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D2622

Rev C1

100

0.00



PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 14538 ☐ a) Extrude as per Dwg D2622 Rev. C ☐ b)
Material: 6061-T6 (QQ-A-200/8) ☐ c) Minimum yield tensile strength = 35
ksi ☐ d) Minimum ultimate tensile strength = 38 ksi ☐ e) Minimum elongation =
8% ☐ f) Order at 120" longg) Bon L Canada Inc.

CL 11/07/20 120

110

Receive & Inspect for Damage & Mat'l Certs

0.00



Packaging

Memo

0.00

Packaging

Ensure material certification is attached

CL 11/08/22 117

120

QC6- Inspect dimensions to drawing

0.00



QC

Memo

0.00

Quality Control

Check Pull test per Dwg D2622 for compliance page attached Check hardness
with Webster tester

5u/08/25

117

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 72131

Tuesday, July 19, 2011 12:42:20 PM



Item ID: D2622-120C

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Setup Start



Revision ID:

Stop



Item Name: Step Extrusion

Start Date: 7/19/2011 Start Qty: 110.00



Cust Item ID:

Required Date: 8/30/2011 Req'd Qty: 110.00



Customer:

Reference:

Run Start



Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Stop



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

130

Identify as per dwg & Stock Location: _____

0.00



Packaging

Pull Qty +70 pcs. to be spot
Memo

0.00

Packaging

checked by DL
Dulov123

11-08-25

140

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/8/25

CL11108125

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, July 19, 2011 12:42:27 PM

Page 1

Work Order ID: 72131

Parent Item: D2622-120C

Parent Item Name: Step Extrusion




Start Date: 7/19/2011

Required Date: 8/30/2011

Start Qty: 110.00

Required Qty: 110.00

Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2622-120CP  Extrusion		Purchased	No			110	Each	0.0000	1	110			



CY 11/08/22 157

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

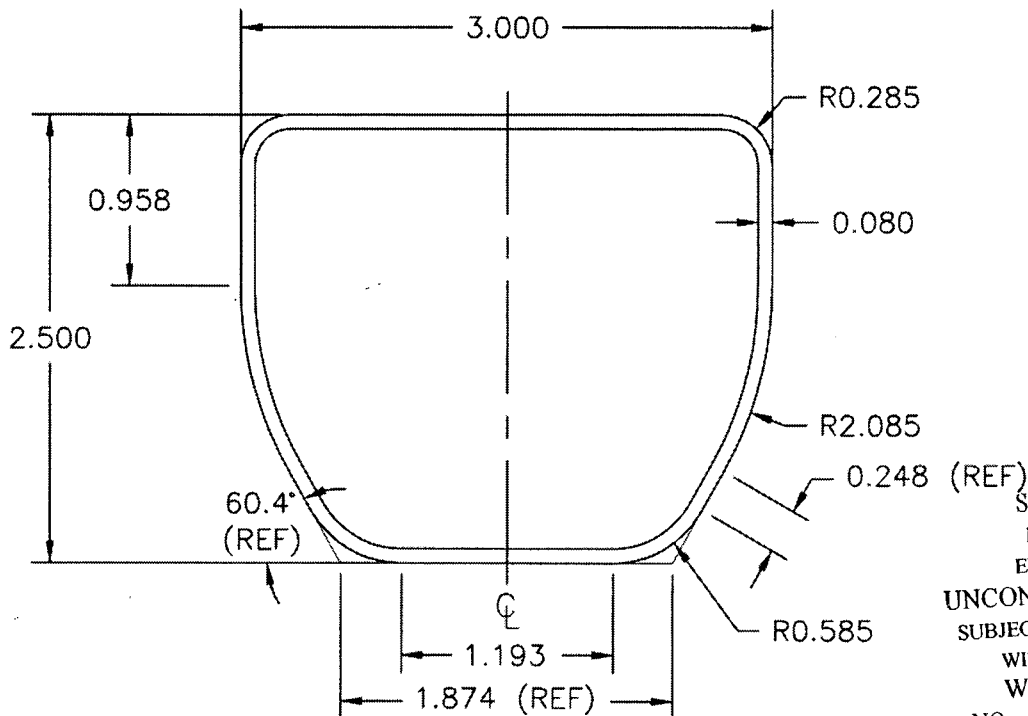
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN	KE	DRAWN BY	4P	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	#	APPROVED	#	DRAWING NO. D2622	REV. C SHEET 1 OF 1
DATE	02.09.11			TITLE STEP EXTRUSION	SCALE 1:1
A	96.11.29			NEW ISSUE	
B	97.12.12			CHANGE MATERIAL, ADD TOL. QSI	
C	02.09.11			0.080 WAS 0.085; ADD PART & DIE No.	
CI	#	4P	02.10.04	ADD 'REV-A' TO DIE NUMBER.	

RELEASED
02.09.11 #



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 72131

D2622-XXX STEP EXTRUSION

- 1) PART NUMBER IS D2622-XXX WHERE 'XXX' IS CUT LENGTH IN INCHES (EG. D2622-120 IS 120" LONG)
- 2) MATERIAL 6061-T6 (QQ-A-200/8)
- 3) MANUFACTURED USING BON-L DIE # 897123 REV. A
- 4) A SAMPLE FROM EACH BATCH WILL BE PULL TESTED TO ASTM STANDARD B221 BY AN APPROVED TESTING FACILITY TO ENSURE THAT THE BATCH MEETS THE MINIMUM MECHANICAL PROPERTIES STATED BELOW:

MINIMUM TENSILE YIELD STRENGTH = 35 ksi
MINIMUM ULTIMATE TENSILE STRENGTH = 38 ksi
MINIMUM ELONGATION = 8%

- 5) PART IS SYMMETRIC ABOUT CENTERLINE
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 7) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries



signature
aluminum
CANADA INC.

ACCT# 46024

INVOICING AND COMPANY LOCATION

SIGNATURE ALUMINUM CANADA
1850 CLEMENTS ROAD
PICKERING ON L1W 3R8

SHIPPING MANIFEST

MANIFEST DATE / DATE DU BODEREAU
08-17-11

MANIFEST NUMBER / N° DE BODEREAU
002269

SALES ORDER NUMBER / N° DE COM
102077

REFER TO
THESE NUMBERS ON
ALL CORRESPONDANCE

REFÉREZ-VOUS A CES
NUMEROUS POUR TOUTE
CORRESPONDANCE

TERMS / FREIGHT

PP

SHIP TO / EXPÉDIÉ À

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

SOLD TO / VENDUE À

DART AEROSPACE LTD.
1270 ABERDEEN ST.
HAWKESBURY, ON K6A 1K7
CANADA

PHONE: 613-632-5200

LOCATION

TRAILER NUMBER /
REMORQUE Nombre

SALESMAN /
VENDEUR

CREDIT REP / REP DU CRÉDIT

SALES REP / REP. DES
VENTES

PIC

5301

042

G.ATTENBOROU

JOB / FICHIER

FIELD SALES REP / REP
REGIONAL DES VENTES

CUST SERVICE REP / REP.
SERVICE CLIENTELE

CUSTOMER ID / ID DU
CLIENT

ORDER DATE / DE LA
COM

CUSTOMER PO NUMBER / CLIENT PO Nombre

14538

BILL OF LADING NUMBER / NO. DE CONNAISSMENT

002269

CARRIER / TRANSPORTEUR
JODEE

G.ATTENBOROU

DLB

ITEM
NO. /
NUMÉRO

ORIGINAL ORDER
QUANTITY /
Quantité d'ordre ORIGINAL

UNIT /
UNITÉ

PREVIOUS
SHIPPED QUANTITY /
PRÉCÉDENT
Quantité livrée

MFG. PART NUMBER /
MFG. PARTIE NUMÉRO

CUSTOMER PART NUMBER /
NUMÉRO DE RÉFÉRENCE DU CLIENT

ALLOY & TEMPER /
ALLIAGE & TEMPER

LENGTH / LONGUEUR

CUTTING TOLERANCE /
Tolérance de coupe

FINISH DESCRIPTION / DESCRIPTION DE FINITION

FABRICATION DESCRIPTION / DESCRIPTION DE FABRICATION

SHIPPING TOLERANCE / EXPÉDITION TOLERANCE

NBR OF
PKGS /
NBR DE
PKGS

GROSS LBS /
LIVRES BRUT

NET QUANTITY
/ QUANTITÉ
NETTE

UNIT /
UNITÉ

QUANTITY
DUE /
Quantité en
raison

001

1,094 LB

496 KG

120 PC

DAA-897123-1

D2622

6061 T6

120.0000 IN

Cut(+): 0.0000 Cut(-): 0.0000 Min: 0 % Max: 0 %

2

1,129

512

1,085 LB

492 KG

117 PC

804775 / 114153

1

606

584

63 PC

804775 / 114154

1

522

500

54 PC

CD11108/22

Transportation/Traffic damages and/or shortage claims are to be noted on the delivery copy of sellers shipping manifests and signed and dated below by customers authorized representatives.
No return materials will be accepted for credit without permission. The articles and/or services covered by this shipping manifest were produced in accordance with the fair labor standards act of 1938 as amended. Order accepted subject to the terms and conditions stated on the reverse side.

OMER ACKNOWLEDGEMENT OF GOODS DELIVERED AND CONDITION

Page 1

DATE OF DELIVERY

DRIVER

2	1,129	1,085	LB
	512	492	KG
		117	PC
TOTALS			

CERTIFICATE OF COMPLIANCE



SIGNATURE ALUMINUM CANADA

1850 CLEMENTS RD
PICKERING, ON L1W 3R8

Cert Date	Cert No	Sales Order	Page
08/07/2011	5266841	102077	1
Cust PO	B/L No	Lot	Date
14538	002269	804775	08/17/11

Sold To: 46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA		Ship To: 46024 DART AEROSPACE LTD. 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 CANADA	
Item No	Part No	Item Description	Cust Part
001	DAA-897123-1	DIE REV. A	D2622
Gross Weight		1,129 LBS	
Net Qty		1,085 LBS	
		117 PCS	
		2 PKGS	
Specification		Die Desc	
AMS QQA 200/9 + ASTM B221-08			

Mechanical Tests:

Tensile	Yield	%	Conductivity	HREW
MPA / KSI	MPA / KSI	Elongation		
287.6 / 41.7	257.3 / 37.3	12.3	0.0	91

JUL 23

Chemical Analysis:

SI	FE	CU	MN	MG	CR	ZN	TI	V
0.67	0.28	0.25	0.05	0.98	0.06	0.07	0.02	0.01

This will certify that the material described herein has been inspected and tested in accordance with Signature Aluminum Canada's standard sampling and testing procedures or in accordance with the requirements of any specification forming a part of the material description to the extent indicated herein. Data of chemical composition for the material and test results from samples representative of the material are set forth above hereof or in any attachments hereto. This information shows that the material meets the applicable requirements. Inspection and test records are maintained on file. This certificate shall be deemed apart of and subject to the terms and conditions of warranty set forth on the reverse side of our order acknowledgement form. No other warranties are applicable.

R. Petersen, QA Manager Signature Aluminum Canada Inc